

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) An angular velocity sensor comprising:

a substrate made of single crystal silicon and having a tuning fork shape, the substrate including

a plurality of arms extending in parallel with each other, the plurality of arms vibrating to operate, and

a joint section for connecting respecting ends of the arms with each other;

a barrier layer provided on each of the plurality of arms of the substrate, the barrier layer containing silicon oxide and having a thickness smaller than 0.5 μm ;

a first adhesion layer provided on the barrier layer, the first adhesion layer containing titanium;

a first electrode layer provided on the first adhesion layer, the first electrode layer containing platinum and at least one of titanium and titanium oxide;

an orientation control layer provided on the first electrode layer;

a piezoelectric layer containing PZT-crystal provided on the orientation control layer;

a second adhesion layer provided on the piezoelectric layer; and

a second electrode layer provided on the second adhesion layer;

wherein the barrier layer prevents Si atoms from diffusing in the platinum of the first electrode layer, the orientation control layer and the PZT-crystal of the piezoelectric layer.

2. (Original) The angular velocity sensor of claim 1, wherein the orientation control layer comprises dielectric oxide material containing Pb and Ti.

3. (Original) The angular velocity sensor of claim 1, wherein the orientation control layer comprises lead titanate containing at least one of La and Mg.

4. - 10. (Cancelled)

11. (New) The angular velocity sensor of claim 1, wherein the thickness of the barrier layer ranges from 20 nm to 300 nm.